

USEPA Region 5-Illinois EPA Monthly Air Permits Call

DATE: March 3, 2010
SUBJECT: Air Permits Conference Call of February 23, 2009
FROM: Constantine Blathras, Environmental Engineer
ARD/APB/Air Permits Section
TO: Files
THRU: Pamela Blakley, Section Chief

Next month call: 10:00 AM, March 23, 2010
Call-in number: 217-557-2438

The following are notes from the subject conference call. Representing USEPA was Constantine Blathras. Representing Illinois EPA were Jason Schnepf, Bob Smet, Kevin Hecht, Minesh Patel, Shashi Shah, Chris Romaine, and Ed Bakowski. These conference calls/meetings are for gathering permitting information, identifying issues of potential concern and initiating discussion for timely resolution of issues. USEPA comments made during these calls are tentative and subject to modification upon further review of factual data. IEPA has updated the RBLC to add information on recently issued permits. IEPA will also inform EPA when the permit application is ready for consultation under the Endangered Species Act (ESA).

KEVIN SMITH

ISG/Mittal Steel (Riverdale, Cook Co.); ESA-no: This company proposes to construct two new electric arc furnaces (EAF) to replace the basic oxygen furnaces at its existing steel making plant. The project will be a major PSD/NSR project for VOC, NOx, and PM. No change in status, reviewing modeling. Sent letter for modeling concerns, have not yet received a response. No change.

Afton Chemical (formerly Ethyl Petroleum), (Sauget, St. Clair Co.); ESA-no: This company proposes to revise its permit for its transmission oil additive process for BACT for the condenser. The condenser removes H₂S and CS₂ gases at -35-40°F before passing to a flare. The permit requires operation of the condenser properly to assure vapor liquid separation, compliance would be done by a mass balance and presume the emissions are sent to the flare. IEPA met with company to get additional

information for application, additional information on BACT analysis needed. No change, working on draft.

Nucor Steel, (Bourbonnais, Kankakee Co.): The steel company is proposing a time extension to the PSD permit. The draft permit is being prepared for public notice. The original permit provided for 12 months, the current draft has 18 months.

Keystone Steel and Wire, (Peoria, Peoria Co.): This company proposes to correct its PSD permit which were established in the early 1990s for an SO2 emission limit that is too low.

BOB SMET

Wheatland Tube, (Chicago, Cook Co.); ESA-no NSR: This company is revising its LAER permit, and will install a new mill which is projected to avoid NSR review (the NAA ozone threshold for Chicago is 25 tpy). No change in status. There may be a second mill application coming in. IEPA will probably wait to process both permits at once. No change, on hold.

Chicago Cement (Lake Calumet, Cook Co.); ESA-no: This company proposes to construct a cement kiln and associated equipment. The project will be major for NOx, SO2, and CO. The company has provided information in response to a request from IEPA. IEPA is working on the draft permit.

Taylorville Energy Center: extension to construction permit. IEPA held a public hearing on the extension request and the comment period has now closed. IEPA expects to issue the permit by mid March.

Jo Carol Energy; ESA-yes: The company proposed to construction an 80 MW biomass fueled boiler. The fuel would consist of 85% wood and 15% corn stover. There is not an application yet.

JASON SCHNEPP

US Steel (Granite City, Madison County); ESA-yes, PSD: This is a clean-up of the "Production Increase" PSD permit originally issued January 1996. The primary reason for the revision is to correct the emission rate for combustion of blast furnace gas in combustion equipment at the source. The PSD permit limits SO2 emissions at approximately 6 lb/mmescf but the actual rate has been closer to 16 lb/mmescf. A preliminary draft has been prepared for internal review.

US Steel proposes a modification for its quench tower. They will be netting out of review. IEPA sent a draft to the company for review.

ExxonMobil: This refinery is proposing a "clean up" to their permit to address netting.

MINESH PATEL

Vulcan Materials, (Manteno, Kankakee Co.); ESA-yes: This company had a PSD permit that is being revised to switch out a wet scrubber for a dry scrubber which had never been installed. The company had closed temporarily and is hoping to operate after installing a dry scrubber and adding a preheater kiln tower. IEPA is working on the air quality modeling analysis and has requested additional information. They expect it will be moving to public notice soon. There is currently an enforcement action pending. IEPA is reviewing the PM modeling and projected air concentrations. IEPA working on response to comments.

Marquis Energy (Hennepin, Putnum Co.): This company has applied for revision to construction permit to increase design capacity from 110 mmgal/yr to 125 mmgal/yr. No construction is required as this increase is achieved through improved operating procedures for the plant as achieved at other similar plant. Public Hearing was held on July 22, 2008. Comment Period Ended August 21, 2008.

The IEPA has a summary list of fuel ethanol plant projects in Illinois available on its website:
<http://www.epa.state.il.us/air/permits/ethanol-plants.html>. The information is based on the bureau of air's permit and application files.

Aventine Renewable Energy for Pekin III Project (Pekin, Tazewell Co.): Submitted an application for expansion of 108 million gallons per year dry mill ethanol plant. The proposed ethanol plant would be a stand alone facility (would not be utilizing any of the existing wet mill or dry mill operations). The proposed facility would be a major modification subject to PSD regulations. IEPA sent a lateness notice to the company. On hold.

Patriot Energy: This company proposes to increase its production from 110 to 130 million gallons of ethanol per year.

Mississippi Lime: Will be submitting a PSD application for two new lime kilns. Have received permit application. Working on draft and have requested additional information. No change.

MANISH PATEL

Corn Products ARGO, (Bedford Park, Cook Co.), ESA-no: This company proposes to install a destarching unit and increase the existing equipment operating hours. The will be not be major for PM, PM10, and PM2.5, netting out of review. IEPA is in the final stage of drafting permit. On hold.

Garden Prairie Energy c/o Power Venture Group, (Boone Co.), ESA-no: This company is proposing a 101 MW natural gas-fired internal combustion engine peaker power plant. The proposed plant would also support wind power projects in northern Illinois by serving as an alternative source of power during low-wind periods. The plant will have 12 engines, each with a SCR and a catalytic oxidizer. Request for Additional Information letter sent.

Annawan Energy c/o Power Venture Group, (Henry Co.), ESA-no: This company is proposing a 101 MW natural gas-fired internal combustion engine peaker power plant. The proposed plant would also support wind power projects in northwest Illinois by serving as an alternative source of power during low-wind periods. The plant will have 12 engines, each with a SCR and a catalytic oxidizer. Request for additional information letter sent.

Invenergy Nelson: Extension of its PSD permit.

KEVIN HECHT

3M (Cordova, Rock Island Co.): Adding an atomizer to the existing Thermal Oxidizer System (constructed under Construction permit #02010008) to allow the introduction of liquid fluorochemicals to the oxidizer. The liquid fluorochemicals would then be processed by the oxidizer and associated control equipment in the same manner as gaseous fluorochemicals have been processed, with recovery of hydrofluoric acid (HF) as a result. The project would allow for the processing of higher boiling point materials which would otherwise be sent offsite for thermal destruction. Subject to NSPS Subpart CCCC, Standards of Performance for Commercial and Industrial Solid Waste Incineration Units.

SHASHI SHAH

Baldwin Expansion, LLC (Dynergy Midwest, formerly Illinois Power) (Baldwin, Randolph Co.); ESA-no: \$1.5 billion, two 750 MW coal-fired boilers. 4 - 5 million tons of coal a year by rail/barge. Adding 1500 MW to current 2000 MW from 3 existing boilers at Baldwin Power Plant, approx. 50 miles southeast of St. Louis.

Two new boilers to fire pulverized coal, 750 MW nominal, each (total increase in plant capacity 1500 MW). Selective catalytic reduction (SCR), SO2 scrubbers, and electrostatic precipitators proposed, exhausted through single 590 foot stack (two separate flues).

16,500 tons of SO2, 7,450 tons NOx, 2,250 tons PM total (filterable and condensable), 330 tons VOM and 0.1 tons of mercury. These limits reflect proposed emission limits of 0.25. 0.12 and 0.034 lb/mmBtu for SO2, NOx and PM (total), respectively. After three years, proposed emissions for NOx would drop to 5,300 tons, based on compliance with NOx emission rate of 0.08 lb/mmBtu. Limits may be lowered due to IL EPA evaluation of BACT/LAER. The application does include an air quality analysis. NOx and CO impacts not significant. PM and SO2 modeling shows compliance with NAAQS with a fair margin of compliance.

Dynergy does plan to submit further modeling to address impacts on the nearby Mingo Wildlife refuge, a Class I Area under PSD. This modeling would show that even with the proposed expansion, emissions of SO2 and NOx from Baldwin would be significantly lower than the plant's actual emissions in recent years, i.e., 1996 through 2000.

IL sent letter to source requesting further info. The company is doing modeling to address violations to NSR and a switch from IL coal to PRB coal. Send email to source about permit status, no response from company. No change.

Environmental Appeals Board PSD permits under review:

The following are PSD permits issued by IEPA that are currently before the EAB for review.

1) MGP- Permit issued June 22, 2009. MGP Ingredients of Illinois has proposed to construct a solid fuel-fired

cogeneration boiler and associated equipment at its existing plant in Pekin.

2) Power Holdings- Permit issued October 26, 2009. Power Holdings of Illinois LLC (Power Holdings), has submitted an application for a permit to construct a synthetic natural gas (SNG) plant, southeast of Mount Vernon, near Waltonville, in Jefferson County. The plant would use gasification technology to gasify Illinois Basin coal to create pipeline quality gas that would be sold to natural gas suppliers.